State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

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Reply to: State of Utah
Division of Water Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4870

November 18, 1991

Mr. Larry A. Drew
Manager Environmental Affairs
Hecla Mining Company
P.O. Box C-8000
6500 Mineral Drive
Coeur d'Alene, Idaho 83814-1931

RE: Ground Water Permit, Escalante Tailings Pond

Dear Mr. Drew:

We have reviewed your last report, "Cyanide Transport Modeling, Escalante Mine Tailings Impoundment, Enterprise, Utah," and Hecla's rebuttals in a letter dated September 13, 1991 to our letters calling for a ground water discharge permit application. As part of the review of the report we ran data through the HELP model, which theoretically analyzes the flow within the pond. Our mathematical output essentially agrees with the results Hecla sent us. However, we have seen little evidence that the liner was built everywhere to the theoretical specifications used in the model, and has no fractures, joints or slumps within it. Should leaks in the liner have occurred, Hecla's report and letter do not give the numbers Hecla used to calculate the time required for contaminants to flow from the base of the pond to wells in the valley. Therefore, these numbers and calculations are not available for our review. Neither your values for time of transport from beneath the pond to the monitor wells, which are in thousands of years, or any we have derived, demonstrate that if the pond has leaked, that migrating contaminants would have arrived and been detected at the monitoring wells. The monitor wells can not therefore be used to show that leakage has not occurred. Despite all the technical and theoretical arguments, pro and con, this is a permitable facility, according to the regulations. We require more than a safe theoretical design to consider your facility as a de minimus situation.

Because the pond contains 100 mg/kg cyanide and high concentrations of lead and other metals which have the potential to pollute ground water, it is our position that the material either be

neutralized or managed by some appropriate control technology under a ground water discharge permit. Previous correspondence indicates that because of the expense, it does not appear to be feasible to neutralize the tailings at this point in the operation; therefore, we called for a ground water permit for this facility January 31, 1991. The cyanide transport model and the other data and well logs already available in our files will greatly help in the permit application process. Since the allotted time for making an application is rapidly diminishing we believe it advisable that Hecla call Mack Croft to make an appointment to discuss the requirements, and to begin the application process.

Sincerely,

Utah Water Quality Board

Don A. Ostler, P.E.
Executive Secretary

DAO:MGC:rp/mhf

cc: Wayne Thomas
DOGM
Grant Bagley

Q:ESCAL.LTR